



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/743,810

12/24/2003

Owen Charles Kolstad

08350.3527

1717

58982

7590

06/08/2006

CATERPILLAR/FINNEGAN, HENDERSON, L.L.P.

901 New York Avenue

WASHINGTON, DC 20001-4413

EXAMINER

GREENE, JASON M

ART UNIT

PAPER NUMBER

1724

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/743,810

Applicant(s)

KOLSTAD ET AL.

Examiner

Jason M. Greene

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 March 2006.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17-34 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 17-28 is/are allowed.  
6) ☒ Claim(s) 29,30,32 and 34 is/are rejected.  
7) ☒ Claim(s) 31 and 33 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 24 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Response to Amendment***

***Response to Arguments***

1. Applicant's arguments, see page 6, line 24 to page 9, line 2, filed 8 March 2006, with respect to 35 USC 102 103 rejections of claims 17, 19-28, 27 and 28 have been fully considered and are persuasive. The 35 USC 102 103 rejections of claims 17, 19-28, 27 and 28 have been withdrawn.

2. Applicant's arguments, see page 9, line 10 to page 11, line 4, filed 8 March 2006, with respect to the rejection(s) of claim(s) 29, 30, 32 and 34 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Sutton et al. and Nolen, Jr.

***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Art Unit: 1724

4. Claims 29, 30, 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sutton et al. (U.S. Patent No. 6,916,352 B2) in view of Nolen, Jr. (U.S. Patent No. 5,145,500).

With regard to claims 29, 30 and 32, Sutton et al. discloses a filter (10) comprising a plurality of wire (fiber) mesh filter elements (18), and a (folded) holding member (28) separating each of the plurality of wire mesh elements from adjacent wire mesh elements and positioning each of the wire mesh elements relative to the adjacent wire mesh elements, wherein the holding member includes a base portion and two side portions (formed by the "I" shape), the two side portions being configured to block lateral movement of each of the plurality of wire mesh elements, wherein the side portion are sealed to the plurality of wire mesh elements by an interference fit, and wherein the holding member is corrugated (folded) and has a substantially constant cross-section in Figs. 1-4 and col. 2, line 31 to col. 3, line 9.

Sutton et al. does not disclose the plurality of wire mesh elements being electrically conductive or the holding member insulating each of the plurality of wire mesh elements from adjacent wire mesh elements.

Nolen, Jr. discloses a similar filter (20) comprising a wire mesh element (22) formed of electrically conductive aluminum and a PVC holding member (32,34,36,38) electrically insulating the wire mesh element in Fig. 2, col. 3, lines 39 to col. 4, line 18.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the aluminum material of Nolen, Jr. into the filter

Art Unit: 1724

elements of Sutton et al. to provide filter elements having improved mechanical rigidity and strength and to allow the filters to be used to collect grease, as is well known in the art and suggested by Nolen, Jr. in col. 3, lines 52-61. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the PVC material of Nolen, Jr. into the holding members of Sutton et al. to allow the members to be economically formed by extrusion from inexpensive plastic material, as is well known in the art.

With regard to claim 34, since the holding member of Sutton et al. and Nolen, Jr. is formed from PVC, it is coated with a non-conductive material (the PVC).

***Allowable Subject Matter***

5. Claims 17-28 are allowed.
6. Claims 31 and 33 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter:

With regard to claim 31, the prior art made of record does not teach or fairly suggest the filter of claim 29 wherein the side portions are crimped to the plurality of wire mesh elements.

With regard to claim 33, the prior art made of record does not teach or fairly suggest the filter of claim 29 further including at least one electrical connector on each end of the plurality of wire mesh elements, wherein the plurality of wire mesh elements are electrically connected on at least one end.


### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason M. Greene whose telephone number is (571) 272-1157. The examiner can normally be reached on Monday - Friday (9:00 AM to 5:30 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on (571) 272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jason M. Greene  
Primary Examiner  
Art Unit 1724

  
6/6/06

jmg  
June 6, 2006